

## TNKS-IN-1

## Chemical Properties

CAS No. :	59455-93-5
Formula:	C18H18N2O
Molecular Weight:	278.35
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

## Biological Description

Description	TNKS-IN-1 is a selective and potent tankyrase (TNKS1/TNKS2) inhibitor with IC50 values of 7.9 nM and 8.7 nM. TNKS-IN-1 induces axin2 accumulation with an EC50 of 1500 nM. TNKS-IN-1 antagonizes the Wnt signal transduction pathway by stabilizing axin proteins and promoting $\beta$ -catenin degradation. TNKS-IN-1 is used in colorectal cancer research models to investigate Wnt/ $\beta$ -catenin pathway regulation, tankyrase-mediated protein turnover, and downstream transcriptional control mechanisms in oncogenic signaling systems.
Targets(IC50)	Wnt/beta-catenin
In vitro	Methods: In vitro enzyme activity assays and cellular experiments were conducted to evaluate the inhibitory effects of TNKS-IN-1 on TNKS1, TNKS2 and PARP1, as well as its intracellular target inhibition. Results: 1.After 1-hour treatment, TNKS-IN-1 potently inhibited human TNKS1 and TNKS2 with IC <sub>50</sub> values of 7.9 nM and 8.7 nM, respectively. Its IC <sub>50</sub> against PARP1 was greater than 10000 nM. 2.Treatment with TNKS-IN-1 for 24 hours induced axin2 accumulation in DLD1 cells with an EC <sub>50</sub> of 1500 nM, confirming its intracellular tankyrase inhibitory activity [1].

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.5926 mL	17.963 mL	35.926 mL
5 mM	0.7185 mL	3.5926 mL	7.1852 mL
10 mM	0.3593 mL	1.7963 mL	3.5926 mL
50 mM	0.0719 mL	0.3593 mL	0.7185 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Buchstaller HP, et al. Discovery and Optimization of 2-Arylquinazolin-4-ones into a Potent and Selective Tankyrase Inhibitor Modulating Wnt Pathway Activity. J Med Chem. 2019;62(17):7897-7909.

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